



Discontinuing Lead Shielding for X-ray Services

WELL Health Diagnostic Centres no longer recommend the routine use of lead shielding for diagnostic imaging services, such as X-ray. This policy change may seem surprising; However, over the past 50+ years, there have been significant scientific advancements in diagnostic healthcare.

The following are answers to your frequently asked questions.



Why is shielding no longer recommended?

1. With the use of more advanced X-ray equipment and technology, we now use far less radiation and have a better understanding of how it impacts the body. Even the most sensitive areas, such as reproductive organs, are less affected by radiation than we once believed.
2. The risk of harmful radiation exposure is no longer a significant concern as modern X-ray machines can adjust to deliver the optimal amount of radiation required for imaging. If a shield is used, it may cover up parts of your body that may be crucial to the diagnosis. The decreased image quality could potentially require additional imaging, and therefore, prompt an extra dose of radiation.
3. Most radiation exposure to gonads is from internal scatter, rather than direct exposure. As gonadal shields provide minimal exposure against internal scatter, they are not as effective.
4. This update aligns with professional standards for international organizations, such as the Canadian Association of Radiologists (CAR) and the International Commission on Radiological Protection (ICRP) which now advise against routine gonadal shielding in most clinical scenarios.

Doesn't shielding protect me from radiation?

Modern medical imaging technology uses 20-25 times less radiation than conventional x-ray imaging equipment used in the 1950s. Therefore, lead shielding provides negligible protection when the radiation exposure is so small.

What is the harm in shielding?

Shielding may cover up important organs near the area of interest your practitioner needs to see for their diagnosis. If your practitioner wants to examine organs hidden by the shielding, we may have to repeat the exam.

Will radiation exposure to my reproductive organs jeopardize fertility or affect my future children?

Concerns about radiation and the potential impact on reproductive organs are understandable. Fortunately, this has been avidly studied over the years and there is no evidence to support this concern, even for individuals who have experienced higher doses of radiation than what is used in medical imaging.

The acute radiation dose in a single x-ray exam is exponentially less than the required single-dose exposure before infertility becomes a concern. Based on decades of research, advancements in medical imaging technology, and risk-reward evaluations from your doctor and our radiologists, we are confident in performing x-ray imaging exams without gonadal shielding.

What happens if I'm pregnant and require an X-ray?

It's completely natural to want to take every precaution to protect your unborn child. However, shielding your belly while pregnant neither harms nor benefits the fetus. Modern X-ray machines deliver more accurate information with far less radiation than in the past. Both the American Association of Physicists in Medicine (AAPM) and the American College of Obstetricians and Gynecologists (ACOG) state that the amount of radiation used in medical imaging like x-ray is much lower than what can cause harm to a fetus or its development. While shielding may offer peace of mind, it can also block the part of your body that is required for imaging. If this happens, you may encounter another dose of radiation if the images require repetition.

Aren't children more sensitive to radiation?

Yes, children are more sensitive to radiation. However, the amount of radiation used to x-ray your child is not the same as an adult. Our team of experts will adjust our doses and procedures accordingly. Furthermore, your doctor has determined that the benefit from having the information from an x-ray is much higher than the risk from radiation exposure, which is essentially zero.

Can I still request shielding for myself or a loved one in the room with me?

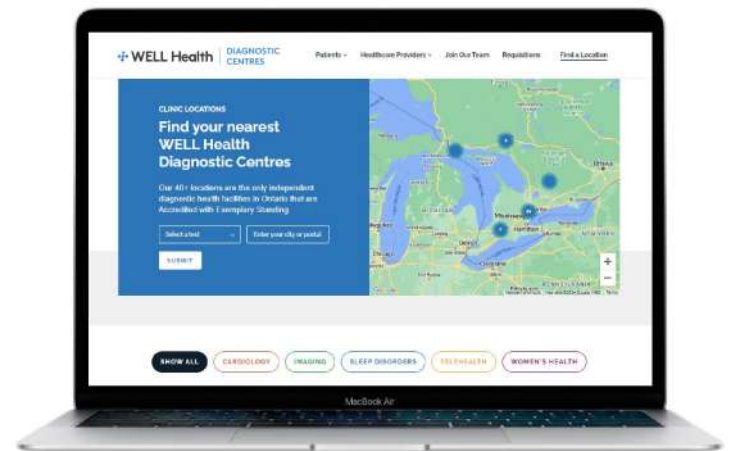
Given the evidence and advancements in technology, we do not recommend using lead shielding during X-rays. However, we will respect your request to use a lead shield during the procedure if it is possible to continue the exam without compromising the image quality.

I still have questions about your new shielding policy. What can I do now?

If you have additional questions or concerns about our new shielding policy, we encourage you to talk to your doctor or medical radiation technologist (MRT) before your exam.

Resources:

- [Canadian Association of Radiologists](#)
- [Canadian Association of Medical Radiation Technologists](#)
- [Canadian Organization of Medical Physicists](#)
- [American Association of Physicists in Medicine](#)
- [Safety Code 35](#)
- [NCRP – Recommendations for Ending Routine Gonadal Shielding](#)



For more information, please visit:

[WELLdiagnostics.ca](https://www.wellhealth.ca/diagnostics)



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